AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listing of claims in the application.

Listing of Claims

1. (Previously Presented): A rack-mount server system, comprising:

a plurality of server modules with heat-generating components, said heat-generating components being cooled by a circulating liquid coolant;

a liquid coolant circulation path to which said server modules are connected in parallel and through which the liquid coolant to cool the server modules is circulated; and

a cooling unit connected in the middle of said liquid coolant circulation path, said cooling unit circulating the liquid coolant and cooling said liquid coolant by radiating its heat to the outside air.

2. (Previously Presented): The rack-mount server system according to claim 1, wherein said liquid coolant circulation path has a bypass route parallel to said server modules and going around said server modules.

3. (Previously Presented): The rack-mount server system according to claim 2,

wherein said liquid coolant circulation path has flow quantity control means in said bypass route to control the flow quantity of the liquid coolant circulating in said server modules.

4. (Currently Amended): The rack-mount server system according to claim 3, wherein said flow quantity control means increases the flow quantity through said flow quantity control means when reducing ~~the circulation~~ a flow quantity of the liquid coolant to the server modules, and

wherein said flow quantity control means reduces the flow quantity through said flow quantity control means when increasing the ~~circulation~~ flow quantity of the liquid coolant to the server modules.

5. (Previously Presented): The rack-mount server system according to claim 2, wherein said server module has flow quantity control means in a flow path connected to said liquid coolant circulation path.

6. (Previously Presented): The rack-mount server system according to claim 5, wherein said flow quantity control means is provided on an inflow side of the liquid coolant circulating in the server module.

7. (Previously Presented): The rack-mount server system according to claim 2,

wherein the flow quantity of the liquid coolant through the bypass route of said liquid coolant circulation path is controlled to change the flow quantity of the liquid coolant circulating in said plurality of server modules.

8. (Previously Presented): The rack-mount server system according to claim 1, wherein each of the server modules has flow quantity control means of the liquid coolant in a part of the liquid coolant circulation path to cool the server modules.

9. (Previously Presented): The rack-mount server system according to claim 8, wherein said flow quantity control means is provided on an inflow side of the liquid coolant circulating in the server module.

10. (Previously Presented): The rack-mount server system according to claim 1, wherein joints with automatic valve are provided, with which an inlet and an outlet of the liquid coolant circulating in said server modules to cool the heat-generating components are connected to said liquid coolant circulation path.

11. (Original) The rack-mount server system according to claim 10, wherein said joints with automatic valve are arranged in accordance with mount pitch of the server modules to be mounted in the rack-mount server system.

12. (Currently Amended) The rack-mount server system according to claim 10,

wherein said joints with automatic valve are provided on a rear surface of the server module so that ~~the~~ a connecting~~/disconnecting~~ direction of the joints corresponds to ~~the~~ a mounting direction of the server module.

13. (Previously Presented): The rack-mount server system according to claim 1, wherein said cooling unit measures the temperature of the liquid coolant discharged to said liquid coolant circulation path and cools the liquid coolant discharged to said liquid coolant circulation path to a predetermined temperature, and the server module controls the flow quantity of the liquid coolant supplied from said liquid coolant circulation path so that the temperature of the heat-generating components cooled by circulating the liquid coolant reaches a predetermined temperature.

14. (Original): The rack-mount server system according to claim 1, wherein said cooling unit is provided at the top of the rack cabinet of the rack-mount server system.

15. (Previously Presented): The rack-mount server system according to claim 1, wherein the flow quantity of the liquid coolant discharged from said cooling unit to said liquid coolant circulation path is larger than the sum of the flow quantities of the liquid coolant circulating in the plurality of server modules connected to said liquid coolant circulation path.

16. (Previously Presented): A rack cabinet of a rack-mount server system in which a plurality of server modules having heat-generating components such as CPU are mounted, comprising:

a liquid coolant circulation path to which said server modules are connected in parallel via joints and through which a liquid coolant to cool the server modules is circulated; and

a cooling unit connected in the middle of said liquid coolant circulation path, said cooling unit circulating the liquid coolant and cooling said liquid coolant by radiating its heat to the outside air.

17. (Previously Presented): The rack cabinet according to claim 16,

wherein said liquid coolant circulation path is arranged vertically along the cabinet, and

said liquid coolant circulation path is arranged on the side of a cable space of the mounted server module.

18. (Original) The rack cabinet according to claim 16,

wherein said cooling unit is provided at the top of the rack cabinet.

19. (Previously Presented): The rack cabinet according to claim 16,

wherein said cooling unit includes a refrigerating unit to radiate the heat generated in the server module and absorbed in the liquid coolant to the outside air.

20. (Currently Amended): The rack cabinet according to claim 19,

wherein a radiator of said refrigerating unit is cooled by the cooling air flowing in a ~~the front/rear~~ direction from a front side to a rear side of the cabinet.

21. (Original): The rack cabinet according to claim 19,

wherein said joints are arranged in accordance with mount pitch of the server modules mounted in the rack cabinet.

22. (Original): The rack cabinet according to claim 16,

wherein said joints are provided so that the connecting/disconnecting direction of said joints corresponds to the mounting direction of the server module.

23. (Original): The rack cabinet according to claim 22,

wherein said joint includes an automatic valve.

24. (Currently Amended): A server module with a heat-generating component such as CPU in a rack-mount server system, comprising:

a first heat-generating component cooled by a liquid coolant supplied from a cooling unit of a rack cabinet; and

a second heat-generating component cooled by ~~the~~ cooling air passing through the server module.

25. (Previously Presented): The server module according to claim 24,

wherein said second heat-generating component is arranged in a front part of the module from which the outside air is delivered, and

said first heat-generating component is arranged in a rear part of the module to and from which said liquid coolant is supplied and drained.

26. (Currently Amended): The server module according to claim 24,

wherein said server module further comprises: joints directed in ~~the~~ a mounting direction of the server module, through which the liquid coolant to cool said first heat-generating component is supplied and discharged.

27. (Currently Amended): The server module according to claim 26,

wherein said joints includes ~~an~~ automatic valves.

28. (Previously Presented): The server module according to claim 24,

wherein flow quantity control means to control the flow quantity of the liquid coolant to cool said first heat-generating component is provided on an inflow side of said liquid coolant.

29. (Original): The server module according to claim 28,

wherein said flow quantity control means controls the flow quantity so that the temperature of said first heat-generating component reaches a predetermined temperature.